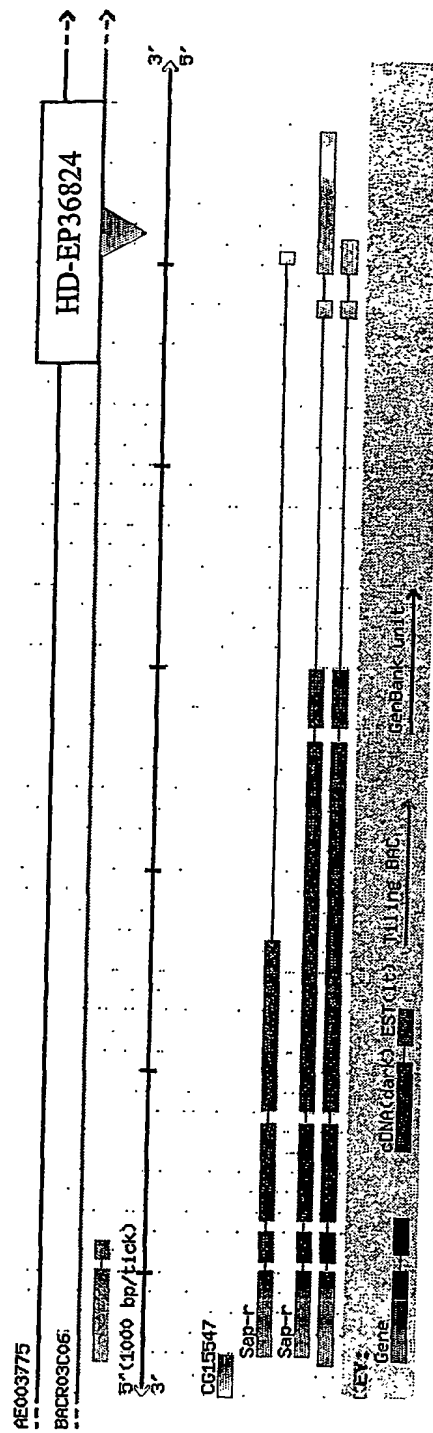Fig. 1

Fig. 2

Fig. 3

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 121 gctcggcagt gtggtgccag aatgtgaaga cggcgtccga ctgcggggca gtgaagcact
 181 gcctgcagac cgtttggaac aagccaacag tgaaatccct tccctgcgac atatgcaaag
 241 acgttgtcac cgcagctggt gatatgctga aggacaatgc cactgaggag gagatccttg
 301 tttacttgga gaagacctgt gactggcttc cgaaaccgaa catgtctgct tcatgcaagg
 361 agatagtgga ctcctacctc cctgtcatcc tggacatcat taaaggagaa atgagccgtc
 421 ctggggaggt gtgctctgct ctcaacctct gcgagtctct ccagaagcac ctagcagagc
 481 tgaatcacca gaagcagctg gagtccaata agatcccaga gctggacatg actgaggtgg
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2641 cttctggttg ccaggagaca gcaagcaaag ccagcaggac atgaagttgc tattaaatgg
2701 acttcgtgat ttttgttttg cactaaagtt tctgtgattt aacaataaaa ttctgttagc
2761 cccccccg
```

Fig. 3A

```
  1 MYALFLLASL LGAALAGPVL GLKECTRGSA VWCQNVKTAS DCGAVKHCLQ TVWNKPTVKS
 61 LPCDICKDVV TAAGDMLKDN ATEEEILVYL EKTCDWLPKP NMSASCKEIV DSYLPVILDI
121 IKGEMSRPGE VCSALNLCES LQKHLAELNH QKQLESNKIP ELDMTEVVAP FMANIPLLLY
181 PQDGPRSKPQ PKDNGDVCQD CIQMVTDIQT AVRTNSTFVQ ALVEHVKEEC DRLGPGMADI
241 CKNYISQYSE IAIQMMMHMQ PKEICALVGF CDEVKEMPMQ TLVPAKVASK NVIPALELVE
301 PIKKHEVPAK SDVYCEVCEF LVKEVTKLID NNKTEKEILD AFDKMCSKLP KSLSEECQEV
361 VDTYGSSILS ILLEEVSPEL VCSMLHLCSG TRLPALTVHV TQPKDGGFCE VCKKLVGYLD
421 RNLEKNSTKQ EILAALEKGC SFLPDPYQKQ CDQFVAEYEP VLIEILVEVM DPSFVCLKIG
481 ACPSAHKPLL GTEKCIWGPS YWCQNTETAA QCNAVEHCKR HVWN
```

Fig. 3B

```
   1 atggctgagt cacacctgct gcagtggctg ctgctgctgc tgcccacgct ctgtggccca
  61 ggcactgctg cctggaccac ctcatccttg gcctgtgccc agggccctga gttctggtgc
 121 caaagcctgg agcaagcatt gcagtgcaga gccctagggc attgcctaca ggaagtctgg
 181 ggacatgtgg gagccgatga cctatgccaa gagtgtgagg acatcgtcca tcatccttaac
 241 aagatggcca aggaggccat tttccaggac acgatgagga agttcctgga gcaggagtgc
 301 aacgtcctcc ccttgaagct gctcatgccc cagtgcaacc aagtgcttga cgactacttc
 361 cccctggtca tcgactactt ccagaaccag attgactcaa acggcatctg tatgcacctg
 421 ggcctgtgca atcccggca gccagagcca gagcaggagc agggatgtc agaccccctg
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 661 atgattccca agggtgcgct acgtgtggca gtggcccagg tgtgccgcgt ggtacctctg
 721 gtggcgggcg gcatctgcca gtgcctggct gagcgctact ccgtcatcct gctcgacacg
 781 ctgctgggcc gcatgctgcc ccagctggtc tgccgcctcg tcctccggtg ctccatggat
 841 gacagcgctg cccaaggtc gccgacagga gaatggctgc cgcgagactc tgagtgccac
 901 ctctgcatgt ccgtgaccac ccaggccggg aacagcagcg agcaggccat accacaggca
 961 atgctccagg cctgtgttgg ctcctggctg gacagggaaa agtgcaagca atttgtggag
1021 cagcacacgc cccagctgct gaccctggtg cccagggct gggatgccca caccacctgc
1081 caggccctcg gggtgtgtgg gaccatgtcc agccctctcc agtgtatcca cagccccgac
1141 ctttga
```

Fig. 3C

```
  1 MAESHLLQWL LLLLPTLCGP GTAAWTTSSL ACAQGPEFWC QSLEQALQCR ALGHCLQEVW
 61 GHVGADDLCQ ECEDIVHILN KMAKEAIFQD TMRKFLEQEC NVLPLKLLMP QCNQVLDDYF
121 PLVIDYFQNQ IDSNGICMHL GLCKSRQPEP EQEPGMSDPL PKPLRDPLPD PLLDKLVLPV
181 LPGALQARPG PHTQDLSEQQ FPIPLPYCWL CRALIKRIQA MIPKGALRVA VAQVCRVVPL
241 VAGGICQCLA ERYSVILLDT LLGRMLPQLV CRLVLRCSMD DSAGPRSPTG EWLPRDSECH
301 LCMSVTTQAG NSSEQAIPQA MLQACVGSWL DREKCKQFVE QHTPQLLTLV PRGWDAHTTC
361 QALGVCGTMS SPLQCIHSPD L
```

Fig. 3D

```
   1 ccatacatgc ttctggcagt gttgcacagc gttgcacagc ttggcggcct cctggctcct
  61 gcaccagaag cttgggccca gggcacactg gtcggtgccc agcagtgggg tcctggggcc
 121 gtggcaggcc cccaccttct tgcacacagc cacggggtcc atcatgtcct tgagactctc
 181 aatgagcacg ggctcgtact gggtgacgaa gtgcttgcac tggatcatat agggcagcgg
 241 caggatgctg cagccaccct tgaaggccac caggatgtct cgcttggtgc tcttgctctc
 301 caagttgtgg gaggacaccg tgagcagcct cttgcaccca ttgcagaagc tgccctggtt
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 421 cctccggttg ccacacagac ggatgaactt gcacaccttc tctggggtga ttttggccac
 481 aagctgcacc aaggaggggc tgtaggtgtc caccaagatg atgcactcct tcgtgataga
 541 ggcaggcatt accgagcaca cgcgctccag ggcatgggtg atcatgagct cagagctgtt
 601 ggacatgagc cagtggtcca gcttctgcac cacgttcatg cacacctcac aggtcacacc
 661 ggccttcatc tgcatctcgc tctgtttcct tggcaacccc agctccaggg aggggacccc
 721 gtccatggcc actacttgag tcaaacgggc aggtgcccct agctcctcac agaatccccc
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 961 ctgccgtaca cagtcttggc acagagctcc ttcaggcgcc tggcgggggt ggaaggtaag
1021 gggcccattg gccatgaacg gagccacagc ctcaaaggtg tcctctttgg agagtggcct
1081 cagggtggcc aggtgcctct gcagcggctc acagaggctg agcgctgtgc acacctgtgc
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1261 caaagccagg atgtcagact ccgtggcgtc agggttcagc ccattgccag cggcggctgc
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1381 ttggcagtac cccacagccc cgcacctggc agctgtctgc agatcctgac accacaccgt
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1501 gctgggcagg aggagcaggg c
```

Fig. 3E

```
   1 ALLLLPSLLG ATRASPTSGP QECAKGSTVW CQDLQTAARC GAVGYCQGAV WNKPTAKSLP
  61 CDVCQDIAAA AGNGLNPDAT ESDILALVMK TCEWLPSQES SAGCKWMVDA HSSAILSMLR
 121 GAPDSAPAQV CTALSLCEPL QRHLATLRPL SKEDTFEAVA PFMANGPLTF HPRQAPEGAL
 181 CQDCVRQVSR LQEAVRSNLT LADLNIQEQC ESLGPGLAVL CKNYLFQFFV PADQALRLLP
 241 PQELCRKGGF CEELGAPARL TQVVAMDGVP SLELGLPRKQ SEMQMKAGVT CEVCMNVVQK
 301 LDHWLMSNSS ELMITHALER VCSVMPASIT KECIILVDTY SPSLVQLVAK ITPEKVCKFI
 361 RLCGNRRRAR AVHDAYAIVP SPEWDAENQG SFCNGCKRLL TVSSHNLESK STKRDILVAF
 421 KGGCSILPLP YMIQCKHFVT QYEPVLIESL KDMMDPVAVC KKVGACHGPR TPLLGTDQCA
 481 LGPSFWCRSQ EAAKLCNAVQ HCQKHVW
```

Fig. 3F

```
PSAP Hs          ----------MYALFLLASLLGAALAGPVLGLKECTRGSAVWCQNVKTASDCGAVKHCL
FLJ40379 Hs      -------------ALLLLPSLLGATRASPTSGPQECAKGSTVWCQDLQTAARCGAVGYCQ
SFTPB Hs         ----MAESHLLQWLLLLLPTLCGPGTAAWTTSSLACAQGPEFWCQSLEQALQCRALGHCL
Sap-r Dm         MERAGLLAVLALCCA-----FGVFAAATPLLGSSKCTWGPSYWCGNFSNSKECRATRHCI


PSAP Hs          QTVWNK---PTVKSLPCDICKDVVTAAGDMLKDNATEEEILVYLEKTCDWLPKPNMSASC
FLJ40379 Hs      GAVWNK---PTAKSLPCDVCQDIAAAAGNGLNPDATESDILALVMKTCEWLPSQESSAGC
SFTPB Hs         QEVWGH---VGADDL-CQECEDIVHILNKMAKEAIFQDTMRKFLEQECNVLPLKLLMPQC
Sap-r Dm         QTVWETQKVPVDTDSICTICKDMVTQARDQLKSNQTEEELKEVFEGSCKLIPIKPIQKEC


PSAP Hs          KEIVDSYLPVILDIIKGEMS-RPGEVCSALNLCESL-----------------------
FLJ40379 Hs      KWMVDAHSSAILSMLRGAPDSAPAQVCTALSLCEPL-----------------------
SFTPB Hs         NQVLDDYFPLVIDYFQNQID--SNGICMHLGLCKSR-----------------------
Sap-r Dm         IKVADDFLPELVEALASQMN--PDQVCSVAGLCNSARIDELYKNGIQAGLDGTVQNEDDS


PSAP Hs          ----------QKHLAELNHQKQLESNKIPELDMTEVVAPFMANIPLLLYPQDGPRSKPQ
FLJ40379 Hs      ----------QRHLAT--------LRPLSKEDTFEAVAPFMANGPLTFHPRQAP-----
SFTPB Hs         ----------QPEPEQEP----GMSDPLPKPLRDPLPDPLLDKLVLPVLPGALQ-----
Sap-r Dm         SEETELAMQPNQLSCGNCNLLSRLMHSKFAATDRDDMVETMLHMCGSLSSFSDACANIVL


PSAP Hs          PKD-----------------------------------------------------NGD
FLJ40379 Hs      --------------------------------------------------------EGA
SFTPB Hs         -----------------------------------------------------------
Sap-r Dm         TYFNDIYDHVSKHLTTDAVCHVSGVCASRYHQHEEEKQP--QEALVALDAG------DDI


PSAP Hs          VCQDCIQMVTDIQTAVRTNSTFVQALVEHVKEECDRLGPGMADICKNYISQYSEIAIQMM
FLJ40379 Hs      LCQDCVRQVSRLQEAVRSNLTLAD---LNIQEQCESLGPGLAVLCKNYLFQFFVPADQAL
SFTPB Hs         -------------------------------ARPGPHTQDLSEQQFPIPLP------
Sap-r Dm         PCELCEQLVKHLRDVLVANTTETEFK--QVMEGFCKQSKGFKDECLSIVDQYYHVIYETL


PSAP Hs          MHMQ---PKEICALVGFCD-----------------------EVKEMPMQTL
FLJ40379 Hs      RLLP---PQELCRKGGFCEE----------------------LGAPARLTQV
SFTPB Hs         -----------------------------------------------------------
Sap-r Dm         VSKLD--ANGACCMIGICQKNSAS--SMKDVPIMPLLPVIEPAQVKITIEKLEKHEKKQL


PSAP Hs          VPAK-VASKNVIPALELVEPIK----KHEVPAKSDVYCEVCEFLVKEVTKLIDNNKTEKE
FLJ40379 Hs      VAMD------GVPSLELGLPRKQS----EMQMKAGVTCEVCMNVVQKLDHWLMSNSSELM
SFTPB Hs         ---------------------------YCWLCRALIKRIQAMIPKG----A
Sap-r Dm         GASEPKFSQQEILDMQLPIDHLMGAANPGALVEGGELCTLCEYMLHFIQETLATPSTDDE


PSAP Hs          ILDAFDKMCSKLPKSLSEECQEVVDTYGSSILSILLEEVSPELVCSMLHLCSG-------
FLJ40379 Hs      ITHALERVCSVMPASITKECIILVDTYSPSLVQLVA-KITPEKVCKFIRLCGNRRR----
SFTPB Hs         LAVAVAQVCRVVPLVAGGICQCLAERYSVILLDTLLGRMLPQLVCRLVLRCSMDDS----
Sap-r Dm         IKHTVENICAKLPSGVAGQCRNFVEMYGDAVIALLVQGLNPRDVCPLMQMCPKNLP----


PSAP Hs          ------------------------TRLPALTVHVTQPKDGGFCEVCKKLVGYLDRNLEKN
FLJ40379 Hs      ------------------ARAVHDAYAIVPSPEWDAENQGSFCNGCKRLLTVSSHNLESK
SFTPB Hs         --------------------AGPRSP-----TGEWLPRDSECHLCMSVTTQAG-----N
Sap-r Dm         --------------KKEDVEVFNPQPAS------DEQDPPTCPLCLFAVEQAQMKIRDN
```

Fig. 3G

```
PSAP Hs        STKQEILAALEKGCSFLPDPYQKQCDQFVAEYEPVLIEILVEVMDPSFVCLKIGACPSAH
FLJ40379 Hs    STKRDILVAFKGGCSILPLPYMIQCKHFVTQYEPVLIESLKDMMDPVAVCKKVGACHGPR
SFTPB Hs       SSEQAIPQAMLQACVGSWLD-REKCKQFVEQHTPQLLTLVPRGWDAHTTCQALGVCGTMS
Sap-r Dm       KSKDNIKKVLNGLCSHLPNEIKEECVDFVNTYSNELIDMLITDFKPQEICVQLKLCPKTT


PSAP Hs        KPLLGT-----------------------------------------------EKCIW
FLJ40379 Hs    TPLLGT-----------------------------------------------DQCAL
SFTPB Hs       SPLQ---------------------------------------------------CIH
Sap-r Dm       YALWDLRISLEDDVDGEDK------SSSEEISFNDIESLEELPPQLAFDPGFTAAPNCLI


PSAP Hs        GPSYWCQNTETAAQCNAVEHCKRHVWN---------------------------------
FLJ40379 Hs    GPSFWCRSQEAAKLCNAVQHCQKHVW----------------------------------
SFTPB Hs       SPDL-------------------------------------------------------
Sap-r Dm       CEELVKTLEKRMGKHPTRDSIKHILEESCDRMRKPMNTKCHKVIDKYGDKIADLLLKEMD


PSAP Hs        ------------------------------------------------------------
FLJ40379 Hs    ------------------------------------------------------------
SFTPB Hs       ------------------------------------------------------------
Sap-r Dm       PKLICTELGMCILAD--LDDLEVDEALKYDVIALPRQDNKLS-----SSIKEPPTCVLCE


PSAP Hs        ------------------------------------------------------------
FLJ40379 Hs    ------------------------------------------------------------
SFTPB Hs       ------------------------------------------------------------
Sap-r Dm       FIMTKLDADLKNKTEQDDIKRAIEAVCNRLPATVRKQCDTFVDGYASAVLKLLSDVPPKQ


PSAP Hs        ------------------------------------------------------------
FLJ40379 Hs    ------------------------------------------------------------
SFTPB Hs       ------------------------------------------------------------
Sap-r Dm       VCQKLQLCFSVAVTD-----EVLECGVCHGVTQALLPFLREKKDNVSEVTALQMTSVGCE


PSAP Hs        ---------------------------------------------------------
FLJ40379 Hs    ---------------------------------------------------------
SFTPB Hs       ---------------------------------------------------------
Sap-r Dm       NLPAKYYKICSEMISIYGSSIKNLAKRPYIDQSHICAEIGKCFESEKSSLAFARISA
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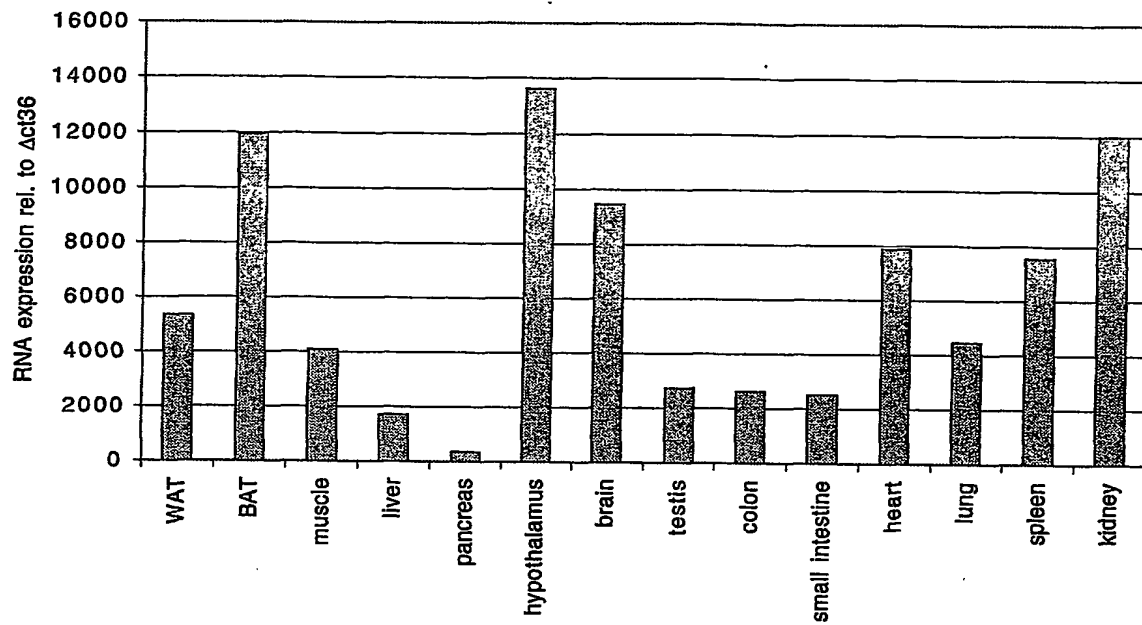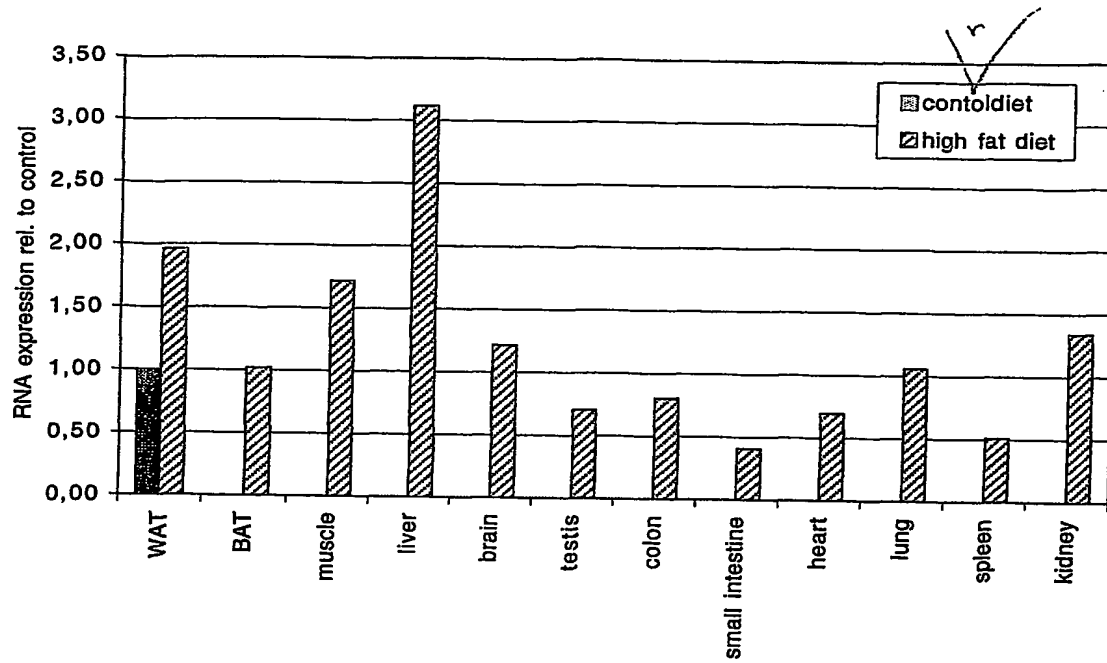
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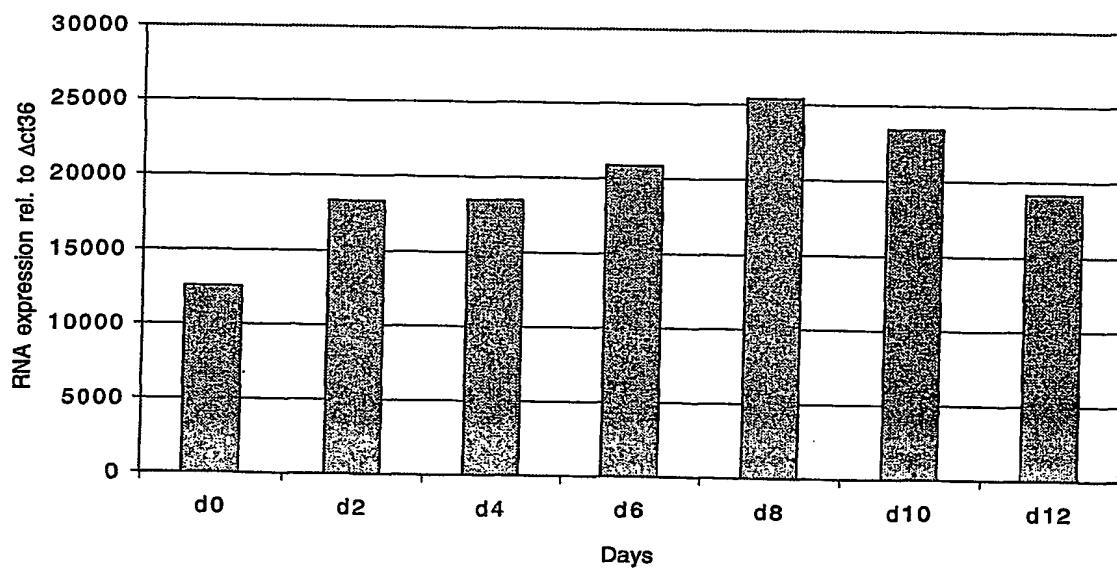
Fig. 4

Fig. 4A
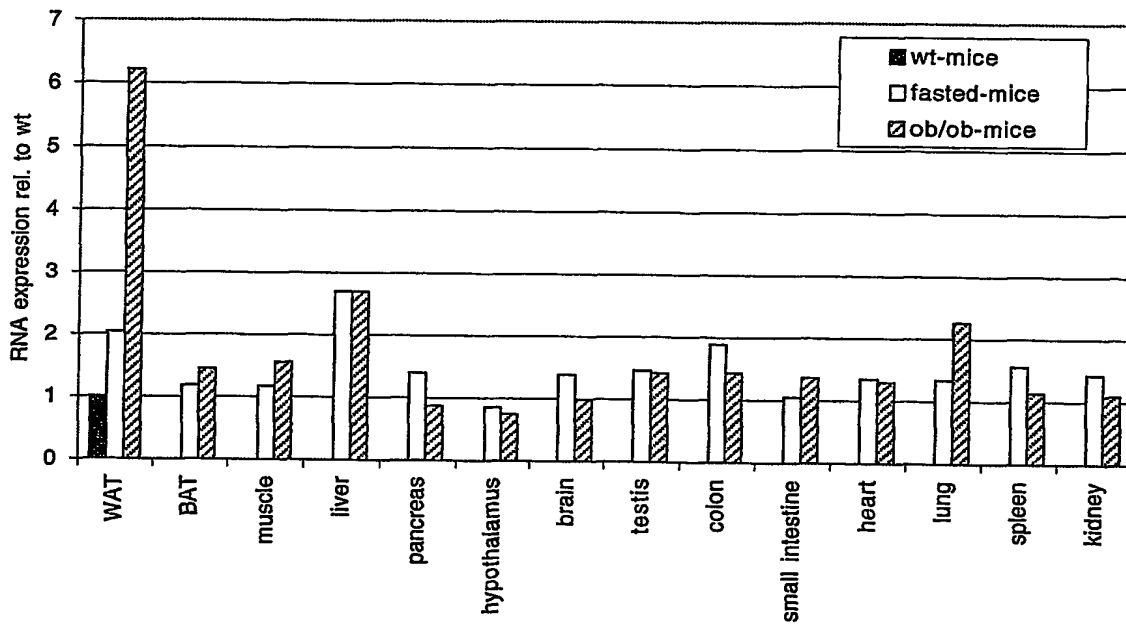
Fig. 4B

Fig. 4C

Fig. 4D

Fig. 5
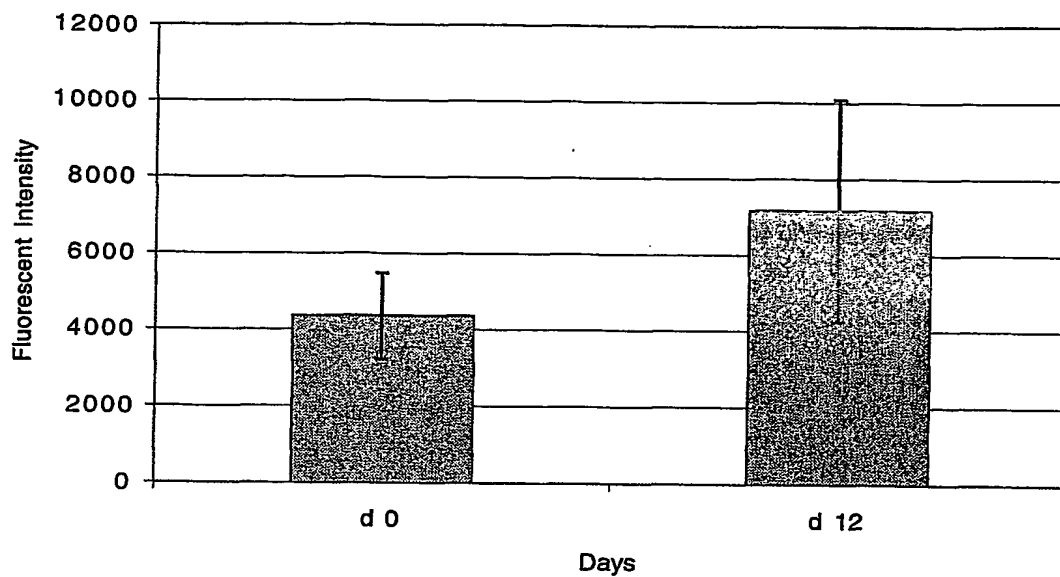
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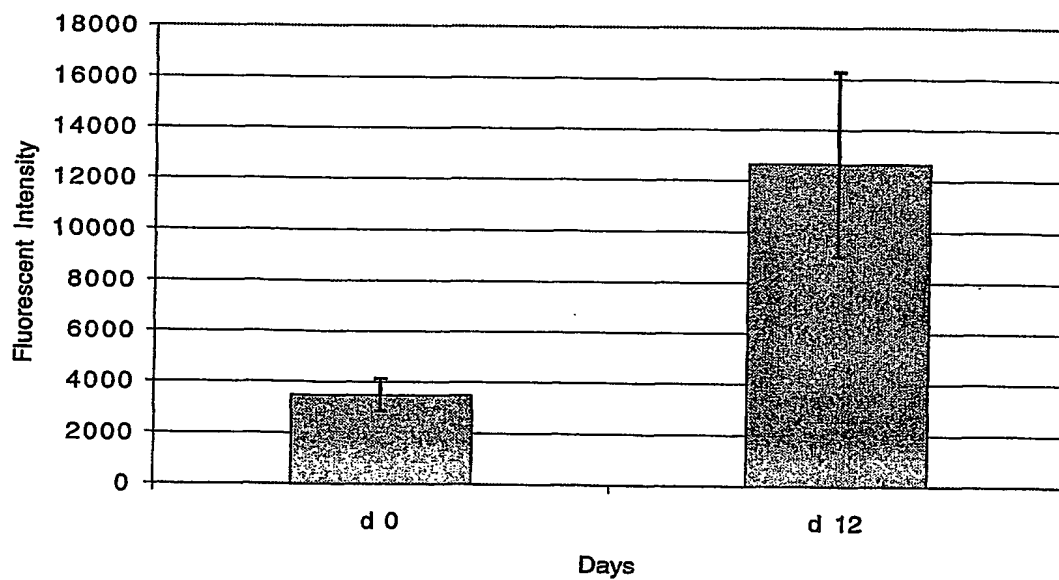
Figure 5B

Fig. 6

Fig. 6A

Fig. 6B